

AMENDMENTS TO THE CLAIMS:

(1) Please cancel claims 1-43 without prejudice or disclaimer of the subject matter thereof.

(2) Please add new claims 44-86.

Claims 1-43 (Canceled).

Claim 44 (New): An apparatus for supplying energy to a load, comprising: a power supply unit having an input for receiving current at mains frequency, means for increasing said frequency to a higher frequency, and an output for delivering energy at said higher frequency;

a two part induction connector having a first core portion that has a primary winding connection connected to said output of said power supply unit and a second core portion that has a secondary winding connection for delivering energy to a load; and

wherein said first and second core portions being of a high resistivity material.

Claim 45 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second core portions of said induction connector are adapted to mate and be disengaged one from another.

Claim 46 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said means for increasing said frequency to a higher frequency is arranged to step-up said mains frequency to a frequency of 23 kHz-10 MHz.

Claim 47 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said means for increasing said frequency to a higher frequency is arranged to step-up said mains frequency to a frequency of 25-60 kHz.

Claim 48 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said means for increasing said frequency to a higher

frequency is arranged to step-up said mains frequency to a frequency of 30-50 kHz.

Claim 49 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said means for increasing said frequency to a higher frequency further comprising an electronic transformer and a means for delivering a modulated DC supply at a predetermined voltage.

Claim 50 (New): The apparatus for supplying energy to a load as set forth in claim 49 further comprising an over-current protection system.

Claim 51 (New): The apparatus for supplying energy to a load as set forth in claim 49 further comprising a load short-circuit protection system.

Claim 52 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said means for increasing said frequency to a higher frequency includes a power supply selected from the group consisting of switched mode power supply and quasi mode power convertor.

Claim 53 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said means for increasing said frequency to a higher frequency is an electronic ballast.

Claim 54 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second core portions of said induction connector are of a material having a bulk resistivity of at least $10^3 \Omega\text{cm}$.

Claim 55 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second core portions of said induction connector are of a material having a bulk resistivity of at least $10^4 \Omega\text{cm}$.

Claim 56 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second core portions are of a nickel-zinc ferrite.

Claim 57 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second portions of said two-part induction

connector further comprising pins and sockets that removably push together for mating together said first and second portions of said connector.

Claim 58 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second portions of said two-part induction connector further comprising clips and recesses that removably snap together for mating said first and second portions of said connector.

Claim 59 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said first and second portions of said two-part induction connector further comprising bayonet formations and recesses that removably twist together for mating said first and second portions of said connector.

Claim 60 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said load is at least one lamp selected from the group consisting of mains incandescent lamps, low-voltage incandescent lamps, light-emitting diodes and fluorescent lamps.

Claim 61 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said load is a plurality of lamps in parallel.

Claim 62 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said load is a plurality of lamps in series.

Claim 63 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said load is a plurality of lamps on a wire or track.

Claim 64 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said load is selected from the group consisting of an electric motor, a power supply for a computer, radio, television, and a heater.

Claim 65 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said primary connection has a multi faceted primary induction connector adapted to couple energy to at least one secondary connectors.

Claim 66 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said secondary connection has a multi faceted secondary

induction connector adapted to couple energy from at least one primary connectors.

Claim 67 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said two-part induction connector being adapted to receive a two-core cable, there being a primary core for providing a primary induction connection having a wire wound around said core, said wire being connected to said two- core cable by an insulation displacement connector device.

Claim 68 (New): The apparatus for supplying energy to a load as set forth in claim 67, wherein said two-part induction connector further comprising a third wire for providing an additional earth connection.

Claim 69 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said two-part induction connector being capable of providing a voltage in dependence upon the number of windings on said secondary core.

Claim 70 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said two-part induction connector has an output voltage from said secondary connection selected from the group consisting of alternating current (AC) and direct current (DC).

Claim 71 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said two-part induction connector are rotatable with respect one to another thereby varying the amount of energy coupled from said primary core portion to said secondary core portion.

Claim 72 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said core portions are rotatable with respect one to another thereby providing a dimmer switch.

Claim 73 (New): The apparatus for supplying energy to a load as set forth in claim 44 further comprising a switching effect achievable by increasing the air gap between surfaces of said primary core and said secondary core portions.

Claim 74 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said two-part induction connector further comprising a low reluctance material.

Claim 75 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said two-part induction connector characterized in that said primary and secondary portions are formed in a shape selected from the group consisting of a toroid, rhomboid, cube, parallelepiped, hemisphere, frusto-conical, and circular symmetric solids.

Claim 76 (New): The apparatus for supplying energy to a load as set forth in claim 75, wherein said two-part induction connector is factory wound and supplied complete to meet specific loading requirements.

Claim 77 (New): The apparatus for supplying energy to a load as set forth in claim 75, wherein said two-part induction is a user wound primary and secondary inductive connector has a preformed profile, to ensure that a correct number of windings are applied.

Claim 78 (New): The apparatus for supplying energy to a load as set forth in claim 44 further comprising a lamp having formed in a housing of said secondary core of said two-part induction connector, said lamp being in electrical connection with a winding on said secondary core in order to energize said lamp.

Claim 79 (New): The apparatus for supplying energy to a load as set forth in claim 78, wherein said housing having at least a first and second pole pieces of said secondary core.

Claim 80 (New): The apparatus for supplying energy to a load as set forth in claim 44, wherein said load is selected from the group of consisting of computers, computer peripheral devices, telecommunications equipment including handheld devices, office equipment, medical equipment, domestic electrical appliances, dish washers, washing machines, micro-wave ovens, food mixers, radios, televisions, hi-fi equipment, audio equipment, mining equipment, industrial equipment, aerospace equipment, marine and sub-marine equipment,

automotive equipment, commercial and domestic furniture, school equipment, retail point of sale and advertising equipment, road signs, road markings, street furniture, petrochemical equipment, lighting, transport airfield and runway, road signs, road markings, electronic surveillance equipment, printed circuit boards, military equipment, transport equipment and security systems.

Claim 81 (New): An apparatus for supplying energy to a load, comprising:

- a power supply unit having an input for receiving current at mains frequency, means for increasing said frequency to a higher frequency, and an output for delivering energy at said higher frequency;
- a socket having a first core portion that has a primary winding connection connected to said output of said power supply unit, said first core portion being of a high resistivity material;
- a plug connectable to said socket, said plug having a second core portion within a housing, said second core portion has a secondary winding connection for delivering energy to a load, said second core portion being of a high resistivity material; and

wherein said housing having a fastening means for use with said load.

Claim 82 (New): The apparatus for supplying energy to a load as set forth in claim 81, wherein said fastening means is selected from the group consisting of bayonet formations, a screw formation, clips, catches, and a slidable engagement mechanism.

Claim 83 (New): The apparatus for supplying energy to a load as set forth in claim 81, wherein said power supply unit being adapted for use with renewable electricity generators selected from the group consisting of wind, solar, wave, and hydroelectric generators.

Claim 84 (New): An apparatus for supplying energy to a load, comprising:

- a power supply unit having an input for receiving current at mains frequency, means for increasing said frequency to a higher

frequency, an output for delivering energy at said higher frequency, and a primary core and winding of an inductive coupler; at least one load having a secondary core and winding of an inductive coupler; and a coupler for removably connecting said power supply unit and said load, said coupler functioning as a transformer.

Claim 85 (New): The apparatus for supplying energy to a load as set forth in claim 84, wherein said primary and secondary cores are made of a ferrite that avoids eddy currents and low hysteresis loss.

Claim 86 (New): The apparatus for supplying energy to a load as set forth in claim 84, wherein said primary and secondary cores are made of a metallic oxide-based ceramic that avoids eddy currents and low hysteresis loss.